621.35

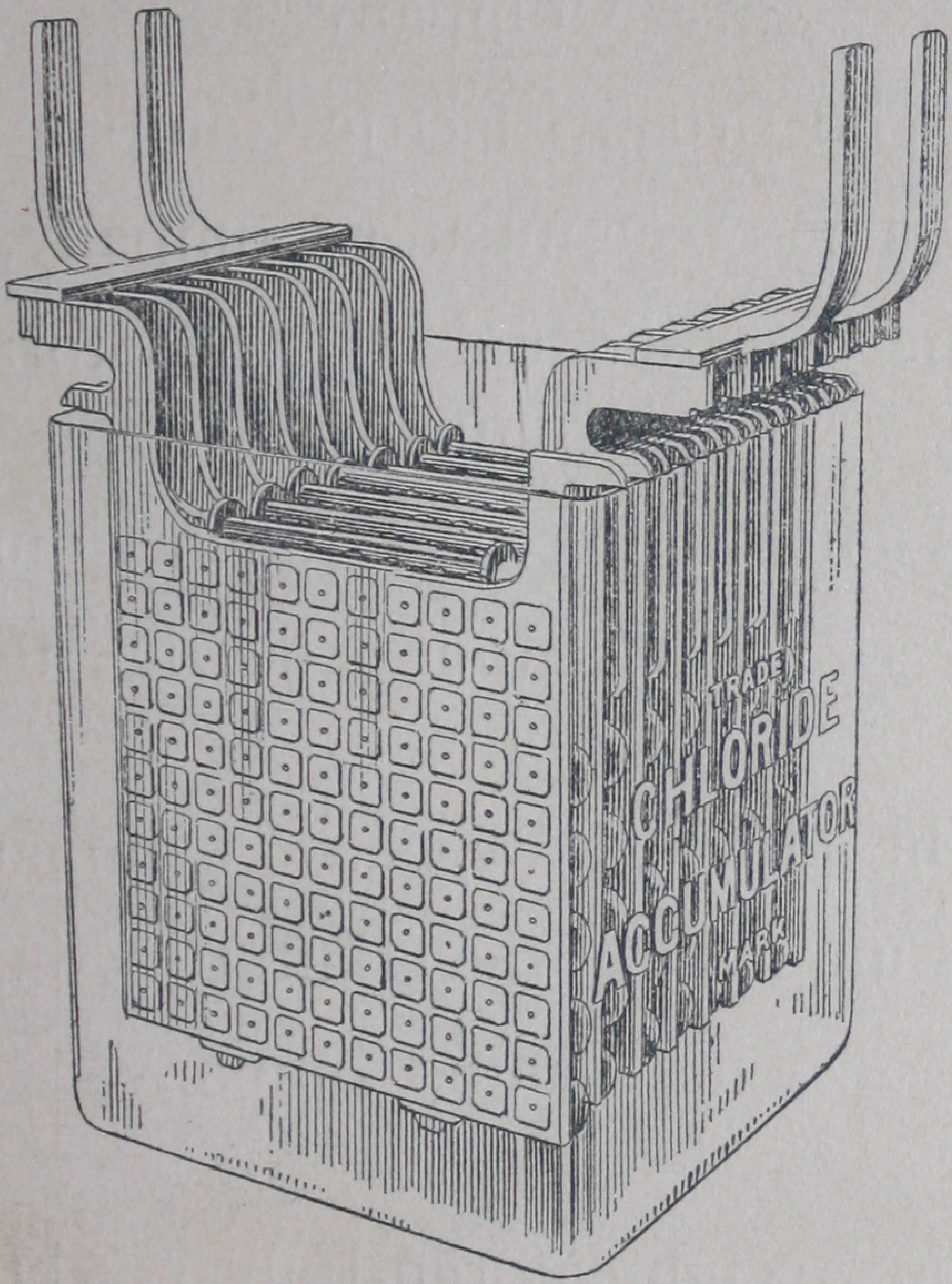
HE ELECTRIC STORAGE BATTERY CO.

SOLE MANUFACTURER OF THE

TRADE MARK

"Chloride Accumulator"

REGISTERED SEPTEMBER 11, 1894



Address Correspondence and Orders to

JAMES G. BIDDLE

Special Selling Agent

1024-25 STEPHEN GIRARD BUILDING, PHILADELPHIA

Price List A
1901
3d Edition

Copyright, 1901, by The Electric Storage Battery Co.

THE Electric Storage Battery Company has acquired all the patents and patent rights concerning the manufacture of electric storage batteries, heretofore owned or controlled by

The General Electric Company,

The Edison Electric Light Company,

The Thomson-Houston Electric Company,

The Brush Electric Company,

The Accumulator Company,

The Consolidated Electric Storage Company,

The General Electric Launch Company,

The Bradbury-Stone Electric Storage Company,

The Hopedale Electric Company,

The Pumpelly-Sorley Battery Company,

The Planté Company,

and

The Accumulatoren-Fabrik Aktien-Gesellschaft,

thereby securing to itself the sole right to supply in the United States and Canada storage batteries of all the various important types heretofore developed.

THE ELECTRIC STORAGE BATTERY CO.

SOLE MANUFACTURER OF THE

TRADE MARK
"Chloride Accumulator"
REGISTERED SEPTEMBER 11, 1894

General Offices, Allegheny Avenue and 19th Street
Philadelphia, Pa.

Works, Philadelphia, Pa., and Camden, N. J.,
U. S. A.

SALES OFFICES

New York, 100 Broadway
Boston, 60 State Street
Chicago, Marquette Building
Baltimore, Equitable Building
St. Louis, Wainwright Building
Cleveland, New England Building
San Francisco, Nevada Block
Philadelphia, Allegheny Ave. and 19th St.

Copyright, 1901, by The Electric Storage Battery Co.

ALLIED COMPANIES

For the Sole Manufacture of

THE "Chloride Accumulator."

THE ELECTRIC STORAGE BATTERY CO.

PHILADELPHIA, PA., U. S. A.

General Offices:
Allegheny Ave. and 19th St.
Philadelphia, Pa.

Works:
Philadelphia, Pa., and
Camden, N. J., U. S. A.

The Chloride
Electrical Storage Syndicate, Limited

London Office:
16 Victoria Street,
Westminster, S. W.

Works:
Clifton Junction,
Manchester.

Registered Office: 8 King Street, Manchester.

Société Anonyme pour le Travail
Electrique des Métaux,

Office:
13 Rue Lafayette,
Paris.

Works:
Quai de Seine,
St. Ouen-les-Docks.

Accumulatoren-Fabrik Aktien-Gesellschaft

(THE TUDOR COMPANY)

Hagen, Westphalia.

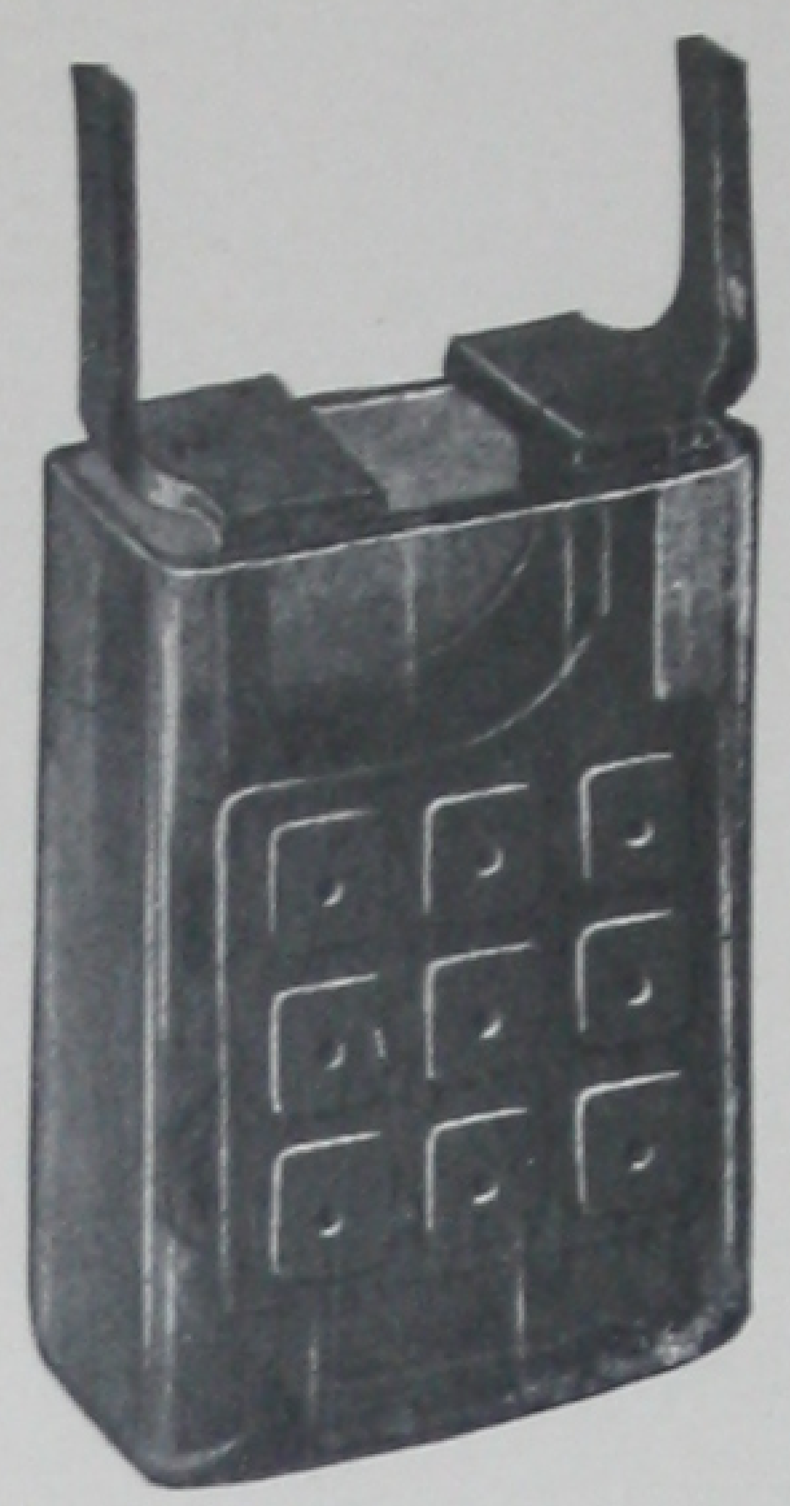
Storage Batteries

THE acquisition five years ago by The Electric Storage Battery Company of all the basic patents and patent rights underlying the manufacture of storage batteries, and the securing since then of patents and patent rights for new and valuable types, enable this Company to furnish cells adapted to every requirement for standard or special work.

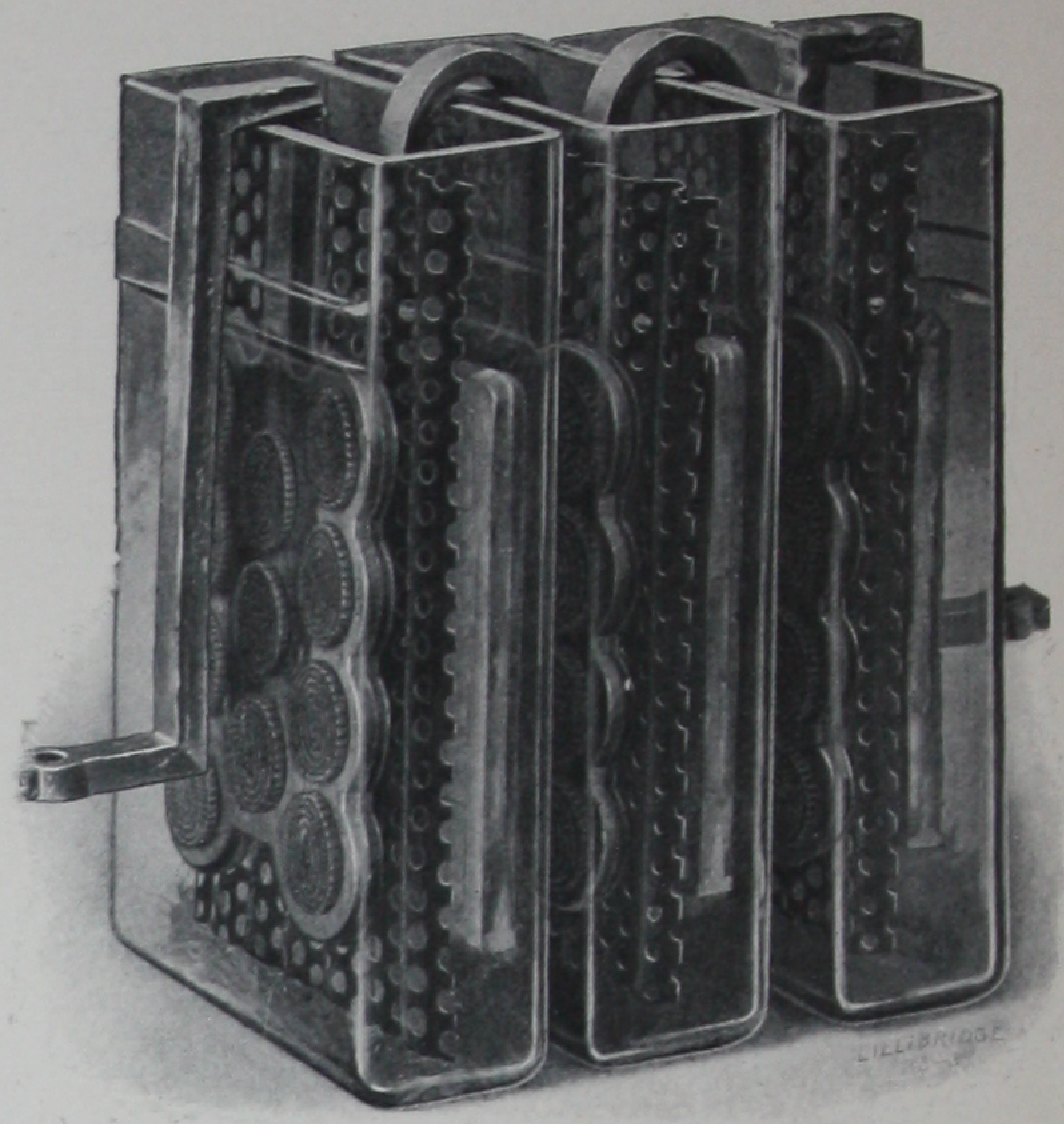
The alliance existing between The Electric Storage Battery Company and the largest manufacturers of storage batteries in England, Germany and France, secures to this Company the fruitful experience of the highest engineering talent available in this special field of electrical manufacture.

The immense value to the public of this united effort to perfect storage battery practice cannot be overestimated, and The Electric Storage Battery Company's products represent the most finished and modern type of accumulator, possessing the highest efficiency, the longest life and most perfect mechanical methods of construction.

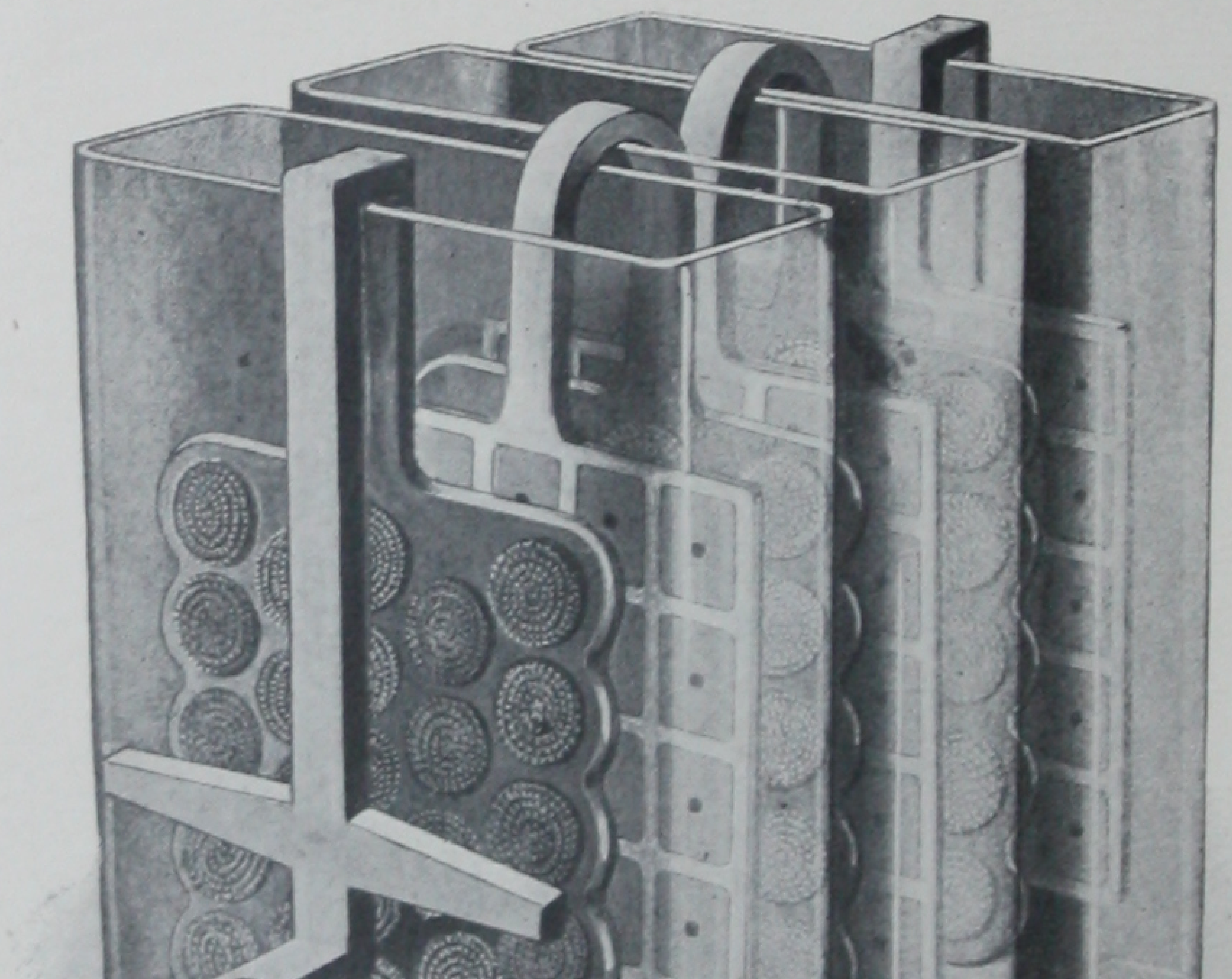
The Electric Storage Battery Company owns the patents covering the applications of boosters to storage battery installations, and has developed types of machines best suited to meet the requirements of the various conditions under which storage batteries are operated.



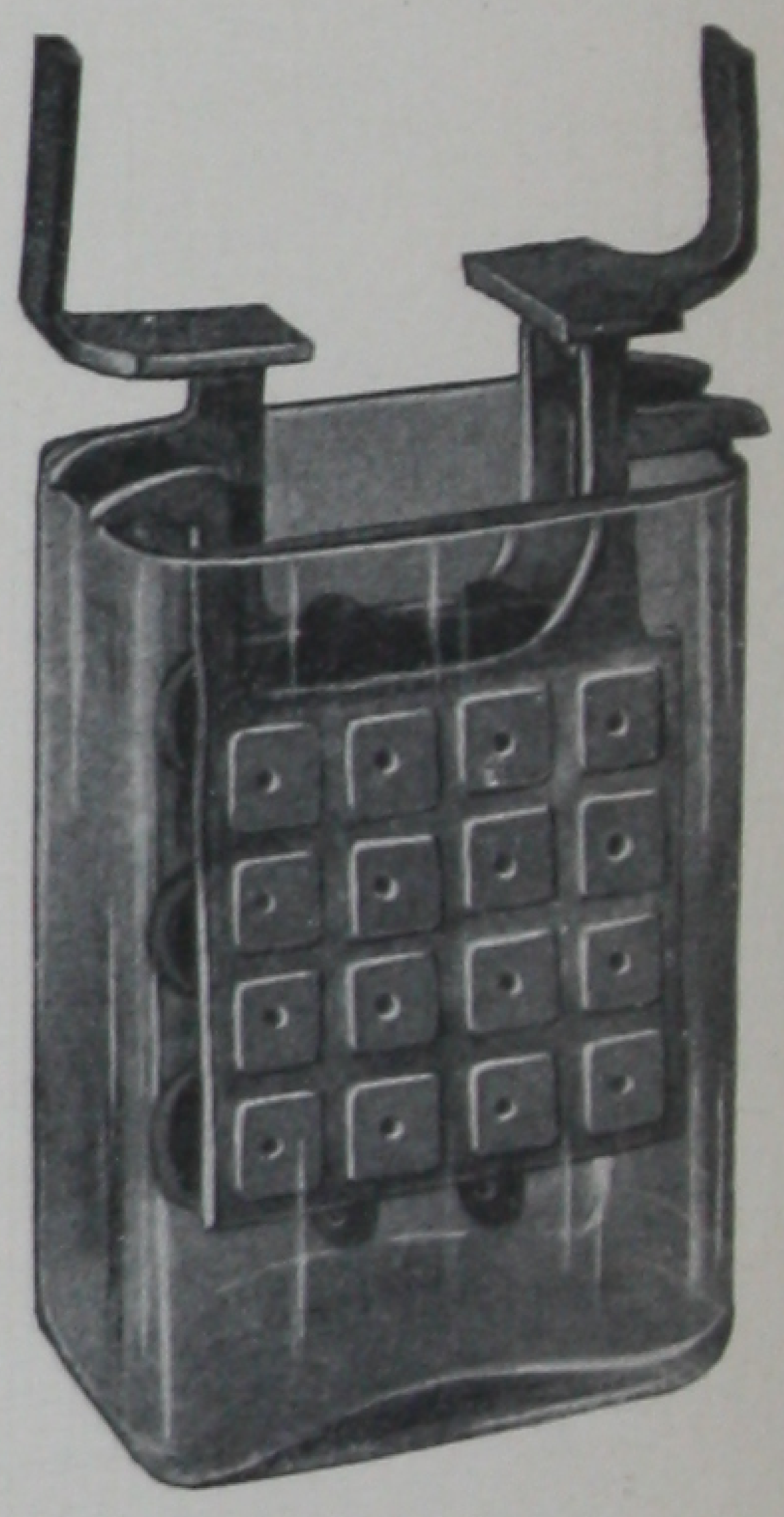
Type "B"
3 Plates, in Glass Jar.



B. T.—Couples, in Glass Jars.



C. T.—Couples, in Glass Jars.



Type "C"
3 Plates, in Glass Jar.

The voltage of cells of all capacities is slightly above two volts on open circuit, and during discharge at the 8-hour rate varies from that point at the beginning to 1.75 at the end.

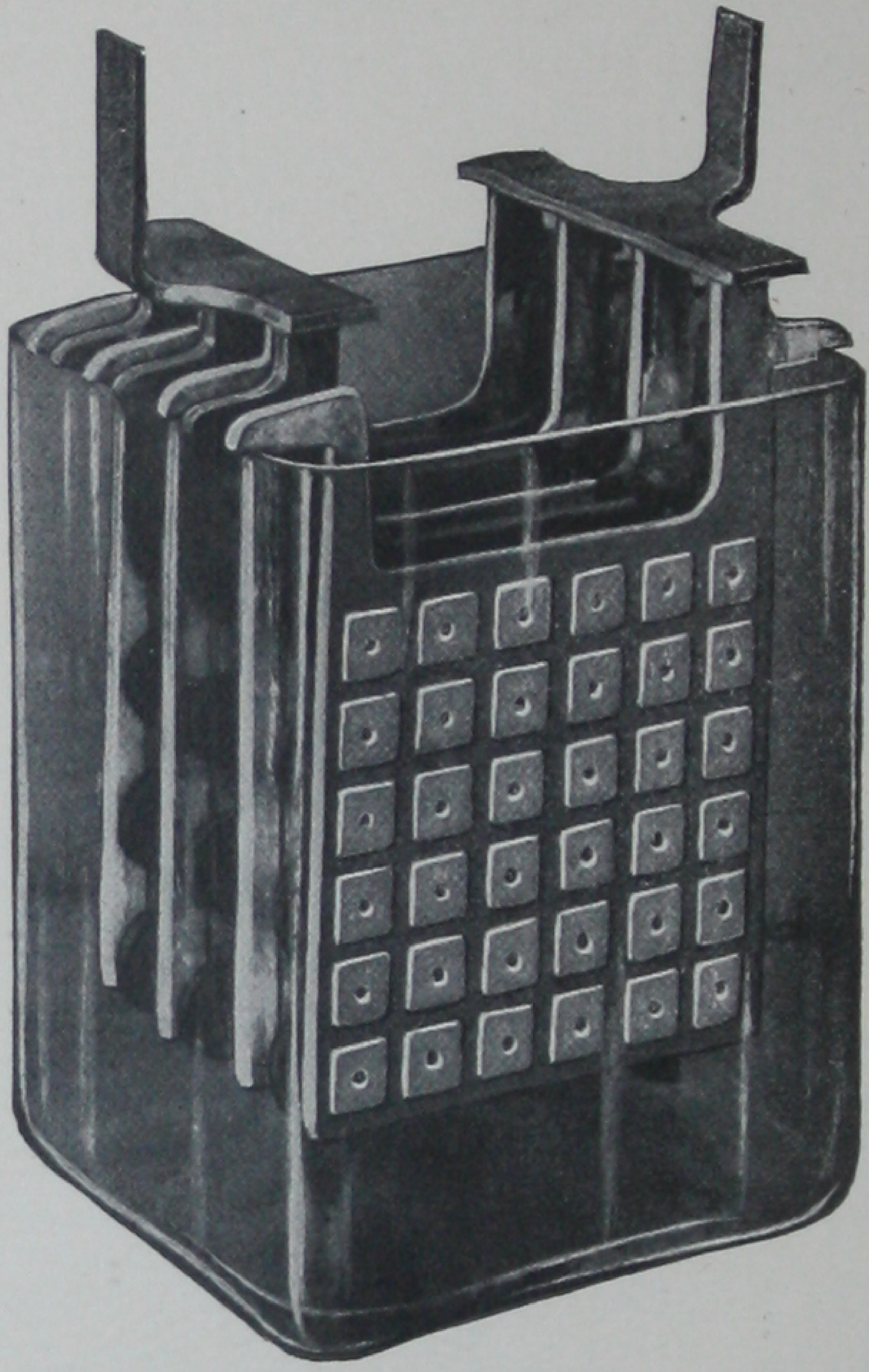
ELEMENTS OF

“Chloride Accumulator”

Type		B	C			BT	CT	PT
Size of Plate in inches:		3x3	4⅜ x 4			3 x 4	5 x 5	8¾x5
Number of Plates		3	3	5	7	2	2	2
Discharge in Amperes	For: 8 hours,	⅝	1¼	2½	3¾	¾	1½	3
	5 ”	⅞	1¾	3½	5¼	1	2	4¼
	3 ”	1¼	2½	5	7½	1½	3	6
Normal charge rate,		⅝	1¼	2½	3¾	¾	1½	3
Outside measurement of glass jar, in inches	Width,	2½	3½	4¼	5¼	1¾	2¼	2½
	Length,	4	5¼	5¼	5¼	3¾	6¼	6
	Height,	4½ 5½ 6½	7¼	7¼	7¼	6¾	8	12
Outside measurement of rubber jar, in inches:	Width,	1¾	1¾	2¾	3⅞	1½	2	2
	Length,	3⅝	4½	4½	4½	3¾	5⅝	5⅝
	Height,	5	7	7	7	6½	8	12¼
Weight of acid in glass jar, in pounds:		¾ 1 1¼	3¼	4¼	5½	¾	2¼	4½
Weight of acid in rubber jar, in pounds:		½	1½	2¼	2¾	½	2	2½
Weight of cell complete with acid, in rubber jar, in pounds:		3½	6½	10	13	2½	5¾	9¾
Height of cell to top of lug, in inches:		7½ 9½ 11½	15	15	15	8	8¼	12¼
Price per Element, only,	$	1.50	2.25	3.50	5.00	0.90	1.75	2.60
Price Rubber Jar and cover, extra	$	0.75	1.00	1.30	1.80	0.80	1.20	1.65
Price Glass Jar, extra,	$	0.15	0.15	0.25	0.30	0.25	0.35	0.60

THE ELECTRIC STORAGE BATTERY CO.

N. B.—In ordering Elements, or parts thereof, specify whether intended for glass or rubber jars. See page 19 for prices of Connectors, Electrolyte, etc.



TYPE "D"—7 PLATES IN GLASS JAR.

ELEMENTS OF TYPE "D."

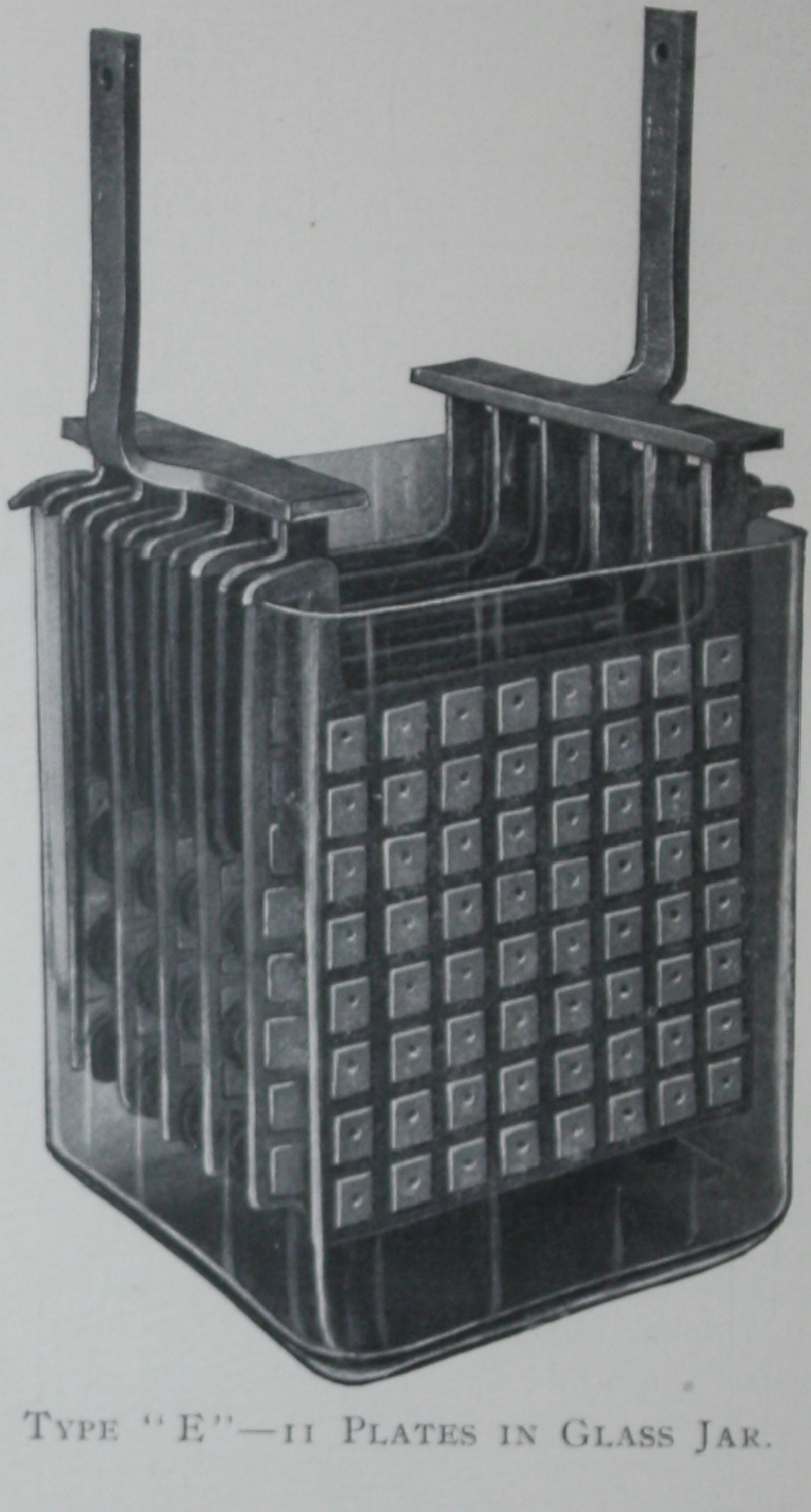
Size of Plates, 6 inches by 6 inches.

"Chloride Accumulator"

Number of Plates . . .		3	5	7	9	11	13
Discharge in Amperes	For: 8 hours .	2½	5	7½	10	12½	15
	5 " .	3½	7	10½	14	17½	21
	3 " .	5	10	15	20	25	30
Normal charge rate . . .		2½	5	7½	10	12½	15
Outside measurement of glass jar, in inches:	Width .	3¼	4¾	6½	8¾	8¾	11
	Length .	7⅞	7⅞	7⅞	8	8	8¼
	Height .	9½	9½	9½	9½	9½	9½
Outside measurement of rubber jar, in inches;	Width .	1¾	2¾	3⅞	5	6⅛	7¼
	Length .	6½	6½	6½	6½	6½	6½
	Height .	9	9	9	9	9	9
Weight of acid in glass jar, in lbs.:		7½	10½	15	17¾	17¼	21
Weight of acid in rubber jar, in lbs.:		2½	3¾	5¼	6¾	7¾	10
Weight of cell complete, with acid, in glass jar, in lbs.:		20	28	38	49	54	64
Weight of cell complete, with acid, in rubber jar, in lbs.:		12	18½	25	33¼	40½	48¼
Height of cell to top of lug, in inches:		18	18	18	18	18	18
Price per Element, only,	$	3.25	5.00	6.75	8.50	10.25	12.00
Price Rubber Jar and cover, extra,	$	1.85	2.20	2.50	2.85	3.80	4.95
Price Glass Jar, extra,	$	0.65	0.80	1.20	1.50	1.50	2.25

THE ELECTRIC STORAGE BATTERY CO.

N. B.—In ordering Elements, or parts thereof, specify whether intended for glass or rubber jars. See page 19 for prices of Connectors, Electrolyte, etc.



TYPE "E"—11 PLATES IN GLASS JAR.

ELEMENTS OF TYPE "E."

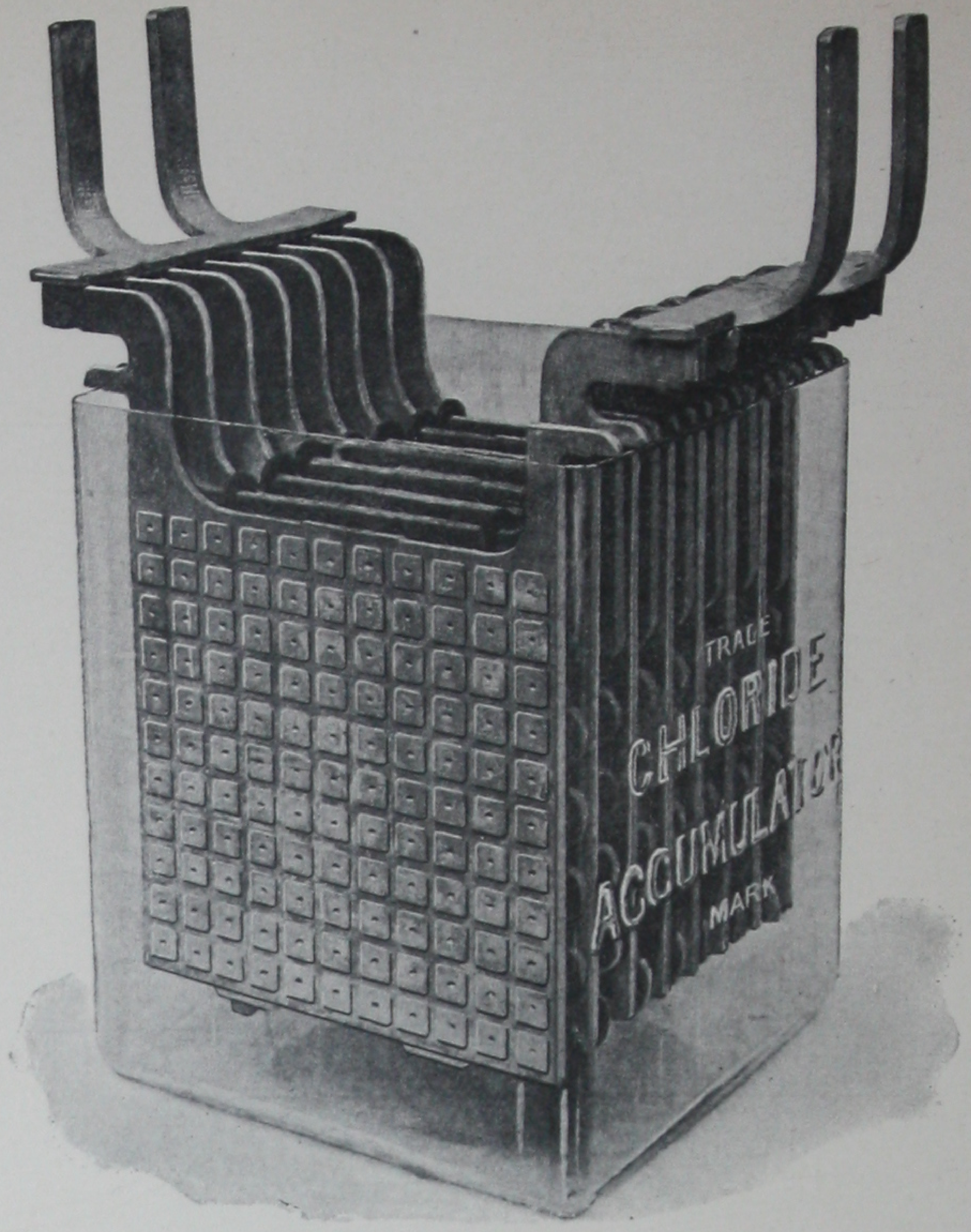
Size of Plates, 7¾ inches by 7¾ inches.

"Chloride Accumulator"

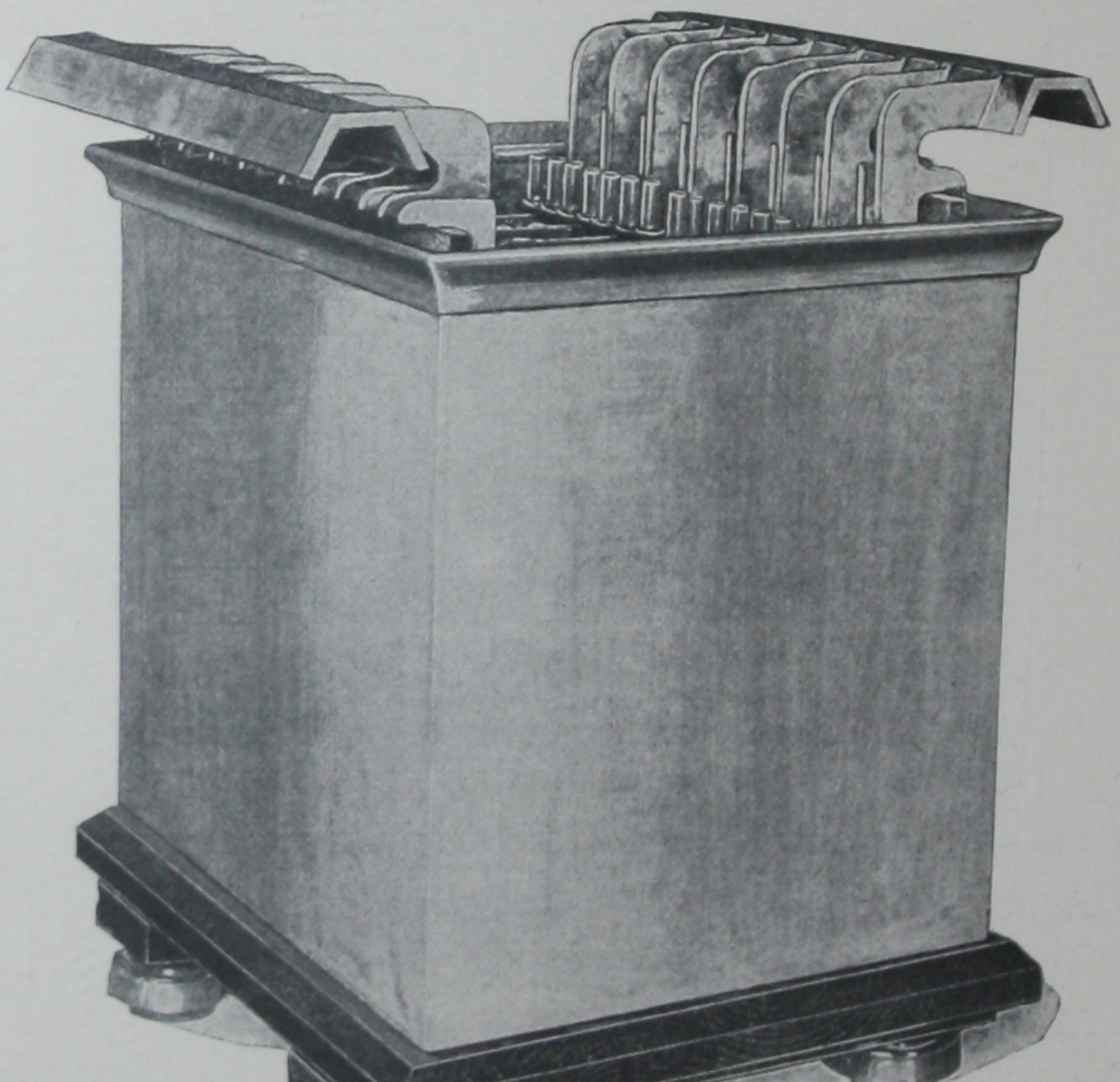
Number of Plates		5	[✓ 7]	9	11	13	15
Discharge in Amperes	For: 8 hours . .	10	15	20	25	30	35
	5 " . .	14	21	28	35	42	49
	3 " . .	20	30	40	50	60	70
	1 " . .	40	60	80	100	120	140
Normal charge rate . . .		10	15	20	25	30	35
Outside measurement of glass jar, in inches:	Width . .	5½	6¾	8	8⅝	11	11
	Length . .	9⅛	9⅛	9⅛	9⅛	9⅛	9⅛
	Height . .	11⅜	11⅜	11⅜	11⅜	11⅜	11⅜
Outside measurement of rubber jar, in inches:	Width . .	2⅞	3⅞	5	6⅛	8⅛	8½
	Length . .	8½	8½	8½	8½	8½	8½
	Height . .	11	11	11	11	11	11
Outside measurement of all metal t'ks, in ins.:	Width . .	8¾	9¾	11⅛	12⅜	13¾	15⅛
	Length . .	11	11	11	11	11	11
	Height . .	12¼	12¼	12¼	12¼	12¼	12¼
Weight of acid, in pounds:	In Glass . .	18½	20	24½	26	35	34
	" Rubber .	5½	8	10½	12	17	18½
	" All metal Tanks . .	27½	31½	36	40	44½	49
Weight of cell complete, with acid, in pounds:	In Glass . .	48¾	59½	73¾	86½	104	112
	" Rubber .	29½	40½	52	63	77	87
	" All metal Tanks . .	85	104	124	136	161	180
Height of cell to top of lug, in ins.:	In Glass . .	20	20	20	20	20	20
	" Rubber .	12½	12½	12½	12½	12½	12½
	" All metal Tanks . .	16	16	16	16	16	16
Price per Element, only, . $		8.25	11.75	15.25	18.75	22.25	25.75
Price Glass Jar, extra, . $		1.20	1.35	1.50	1.75	2.55	2.55
Price Rubber Jar and cover, extra, ... $		3.10	3.55	3.95	5.25	6.00	6.40
Price All metal Tank, extra, $		9.00	9.90	10.80	11.70	12.60	13.50

THE ELECTRIC STORAGE BATTERY CO.

N. B.—In ordering Elements, or parts thereof, specify whether intended for glass or rubber jars or tanks. See page 19 for prices of Connectors, Electrolyte, etc.



TYPE "F"—15 PLATES, IN GLASS JAR.



TYPE "F"—15 PLATES, IN ALL METAL TANK

ELEMENTS OF TYPE "F."

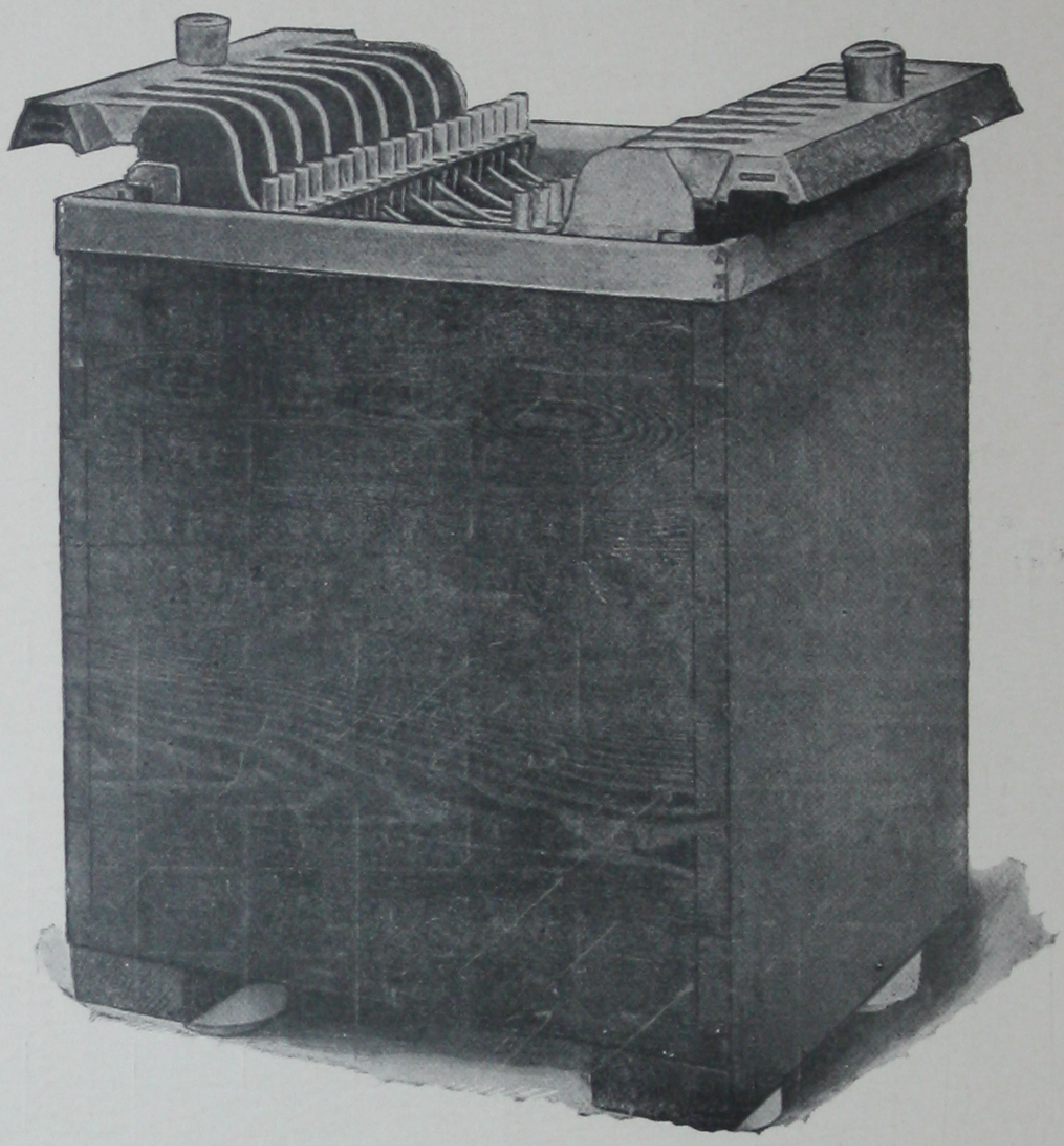
Size of Plates, 11 inches by 10½ inches.

"Chloride Accumulator"

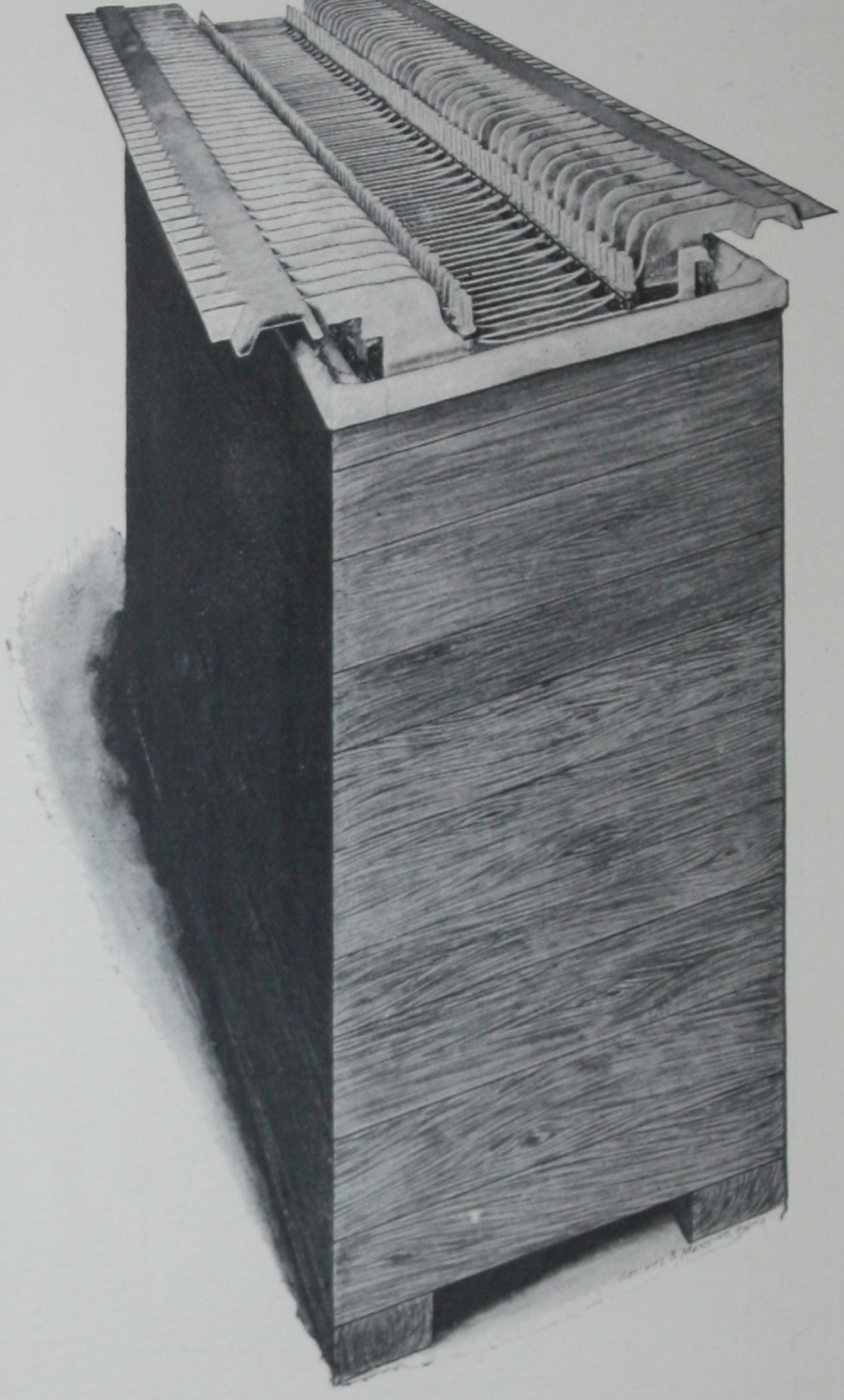
Number of Plates		9	11	13	15	17	19	21	23	25	27
Discharge in Amperes	For: 8 hours,	40	50	60	70	80	90	100	110	120	130
	5 "	56	70	84	98	112	126	140	154	168	182
	3 "	80	100	120	140	160	180	200	220	240	260
	1 "	160	200	240	280	320	360	400	440	480	520
Normal charge rate		40	50	60	70	80	90	100	110	120	130
Outside measurements of glass jar, in inches:	Width, .	9	10⅝	10⅝	12						
	Length, .	12⅝	12⅝	12⅝	12⅝						
	Height, .	15½	15½	15½	15½						
Outside measurements of all metal tanks, in inches:	Width, .	13⅛	14⅞	16½	18⅛	19¾	21½	23⅛	24¾	26⅜	28⅛
	Length, .	14¼	14¼	14¼	14¼	14¼	14¼	14¼	14¼	14¼	14¼
	Height, .	15⅛	15⅛	15⅛	15⅛	15⅛	15⅛	15⅛	15⅛	15⅛	15⅛
Outside measurements of lead lined wooden t'ks in inches:	Width, .	13⅜	15⅛	16¾	18⅜	20	21¾	23⅜	25	26⅝	28⅜
	Length, .	15	15	15	15	15	15	15	15	15	15
	Height, .	17¾	17¾	17¾	17¾	17¾	17¾	17¾	17¾	17¾	17¾
Weight of acid, in pounds:	In glass jars, . .	56	61	59	70						
	In all metal tanks,	78	88	98	108	117	128	138	147	157	168
	In wooden tanks,	70	80	90	100	108	117	126	135	145	154
Weight of cell complete, with acid,	In glass jars, . .	149	173	190	223						
	In all metal tanks,	225	261	295	329	364	400	434	468	503	539
	In wooden tanks,	217	253	288	322	356	391	425	460	495	531
Height of cell to top of lug, in ins.:	In glass jars, . .	26	26	26	26						
	In all metal tanks,	20¼	20¼	20¼	20¼	20¼	20¼	20¼	20¼	20¼	20¼
	In wooden tanks,	21⅝	21⅝	21⅝	21⅝	21⅝	21⅝	21⅝	21⅝	21⅝	21⅝
Price per Element, only:	$	30.00	37.50	45.00	52.50	60.00	67.50	75.00	82.50	90.00	97.50
Price Glass Jar, extra:	$	4.00	4.75	4.75	5.75						
Price all metal Tanks, extra:	$	13.50	14.50	15.50	16.50	17.50	18.50	19.50	20.50	21.50	22.50
Price Lead-lined Wooden Tanks, extra:	$	11.25	12.00	12.75	13.50	14.25	15.00	15.75	16.50	17.25	18.00

THE ELECTRIC STORAGE BATTERY CO.

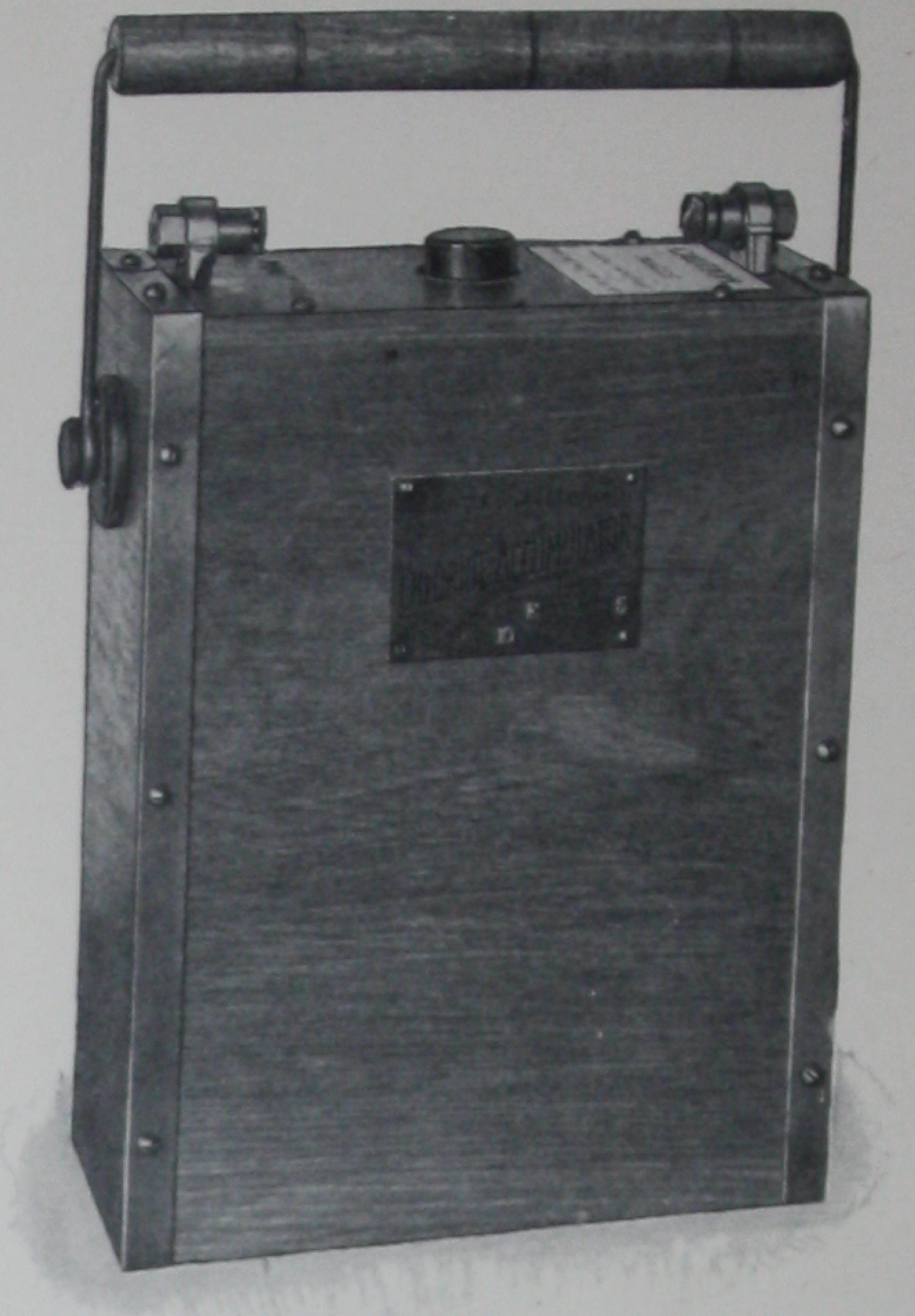
N. B.—In ordering Elements, or parts thereof, specify whether intended for glass jars or tanks. Note that four bolt connectors are required for F Elements in glass. See page 19 for prices of Connectors, Electrolyte, etc.



TYPE "G"—19 PLATES, IN LEAD-LINED TANK.



Type "H"—87 Plates, in Lead-Lined Tank.



TYPE 501—PORTABLE BATTERY.

"Chloride Accumulators" in Portable Hardwood Cases.

For portable use, in connection with phonograph, kinetoscope, other small motor work, and small electric lamps, "Chloride Accumulators" are put up in sealed rubber jars, enclosed in neat hardwood cases, provided with handles and binding posts. Various capacities are furnished, as per list following, in which prices are given for batteries complete, ready for immediate use, if ordered shipped with electrolyte and charged.

Unless otherwise ordered, portable batteries will be shipped filled with electrolyte, and charged ready for service. While the greatest care is used in packing, it is almost impossible to avoid damage to cells of this type when shipped by freight; for short distances it is therefore recommended to ship by express, where packages receive more care in handling. Where this method is too expensive it is advised to forward without electrolyte, which may be ordered to be shipped in a separate vessel, for which a small extra charge is made.

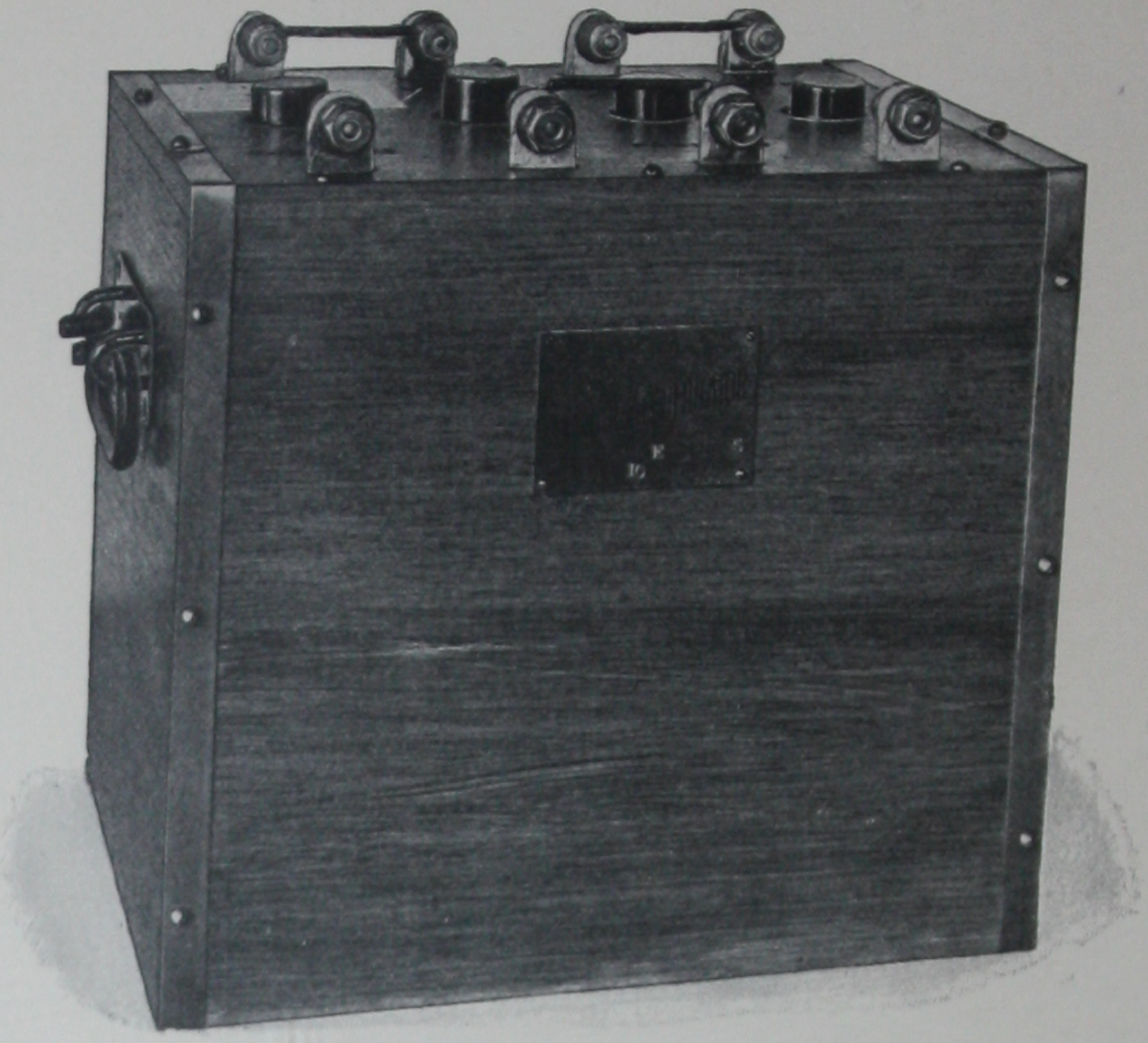
The normal rate is the highest rate in amperes at which the battery should be charged. At this rate the battery will be fully charged in nine hours and discharged in eight hours. At less than normal rates the length of time is increased in both instances and in discharging at more than the normal the time is decreased.

Each cell gives approximately two volts, and, as all the cells in a case are connected together in series, the number of cells multiplied by two will give the approximate voltage between the two binding posts attached to each case.

With each battery is furnished a pamphlet in detail, for the care and operation of portable batteries, the directions in which should be followed in order to obtain the most efficient results.

Portable Batteries.

Catalogue No.	No. of Cells in Case.	Type and Number of Plates.	Normal Charge and Discharge Rate.	Outside Dimensions of Case. Inches.	Height Over Lugs, in Inches.	Weight Complete.	Price Complete Charged.
			Amperes.	Wide. Long. High.		Pounds	
301	1	“C” 3	1¼	3 x 5½x10½	11¾	8	$5 00
302	2	“	1¼	4¾x 5½x10½	11¾	14	9 00
303	3	“	1¼	6½x 5½x10½	11¾	20	12 50
304	4	“	1¼	8¼x 5½x10½	11¾	26	16 00
305	5	“	1¼	10 x 5½x10½	11¾	32	19 00
401	1	“D” 3	2½	3¼x 7¾x12½	13¾	15	6 50
402	2	“	2½	5¼x 7¾x12½	13¾	26	12 00
403	3	“	2½	7¼x 7¾x12½	13¾	37	16 50
404	4	“	2½	9¼x 7¾x12½	13¾	48	21 00
405	5	“	2½	11¼x 7¾x12½	13¾	59	25 00
406	1	“D” 5	5	4¼x 7¾x12½	13¾	24	10 00
407	2	“	5	7½x 7¾x12½	13¾	43	18 00
408	3	“	5	10¾x 7¾x12½	13¾	62	26 00
409	4	“	5	14 x 7¾x12½	13¾	81	32 00
410	5	“	5	17¼x 7¾x12½	13¾	100	38 00
411	1	“D” 7	7½	5¼x 7¾x12½	13¾	33	12 00
412	2	“	7½	9¼x 7¾x12½	13¾	58	22 00
413	3	“	7½	13¼x 7¾x12½	13¾	83	30 00
414	4	“	7½	17¼x 7¾x12½	13¾	108	40 00
415	5	“	7½	21¼x 7¾x12½	13¾	133	50 00
501	1	“E” 5	10	4¼x10 x14¼	15½	33½	14 50
502	2	“	10	7⅜x10 x14¼	15½	60	28 00
503	3	“	10	10½x10 x14¼	15½	86¾	40 00
504	4	“	10	13⅝x10 x14¼	15½	113¼	50 00
505	5	“	10	16¾x10 x14¼	15½	140	60 00
506	1	“E” 7	15	5½x10 x14¼	15½	42¼	18 00
507	2	“	15	9¾x10 x14¼	15½	82½	35 00
508	3	“	15	14 x10 x14¼	15½	122¾	50 00
509	4	“	15	17¼x10 x14¼	15½	163	60 00
510	1	“E” 9	20	6½x10 x14¼	15½	44⅞	21 00
511	1	“E” 11	25	7½x10 x14¼	15½	53½	25 00



TYPE 504—PORTABLE BATTERY.
(See Page 19.)

Packing Charges.

In addition to the prices for Elements and Jars the following charges will be made for *cases* and *packing*.

“B” and “B. T.” Elements, 2 cents each.
“C” and “C. T.” Elements, 4 “ “
“P. T.” Elements, 10 cents each.
“D” Elements, 10 cents each.
“E” Elements, 15 “ “
“F” Elements, 25 “ “
“F” Plates (knocked down), 3 cents per plate.
“G” Plates “ “ 5 “ “
“H” Plates “ “ 8 “ “

Portable Batteries up to 100 pounds weight, 25 cents each; 100 pounds and over, 50 cents each.

Rubber Jars, 5 cents each.

No charge for packing Glass Jars.

The minimum charge on any one order, 25 cents.

PRICES.

Trade Discounts furnished on application.

When ordering note the following :

(1.) Prices of Elements do not include Rubber Jars, Glass Jars, Tanks, Electrolyte or Connectors, which are additional.

(2.) Prices are for delivery *F. O. B.* cars at works, Allegheny Avenue and Nineteenth St., Philadelphia, or Camden, N. J.

(3.) Carboys will be allowed for in full when returned to our works, in good condition, charges prepaid.

We are not liable for damage to goods in transit; our responsibility ceases when we deliver the material in good order to the Transportation Company; all claims for damage in transit should be made against the carrier.

Sundry Supplies.

Electrolyte (Battery Fluid)	$3.00 per 100 lbs.
Hydrometers	1.50 each.
Sealing Compound	.50 per lb.
Bolt Connectors, Type E and F	.24 each.
“ “ “ B, C and D . . .	.15 “
Binding Posts for Portable Cells	.40 per set of two.

Renewals.

Type Elements.	Positive Plates.	Negative Plates.	Rubber Ring Separators.	Corrugated and Perforated Rubber Separators.	Glass Tube Separators.
“B” . . .	$0.60	$0.45	$0.05	$0.05	. . . .
“C” . . .	1.00	.70	.06	.07	. . . .
“D” . . .	1.26	.85	.07	.13	. . . .
“E” . . .	2.10	1.40	.09	.21	. . . .
“F” . . .	4.00	2.80	.12	. . . .	$0.10
“G” . . .	7.85	5.60	. . . .	. . . .	.12
“H” . . .	15.70	11.20	. . . .	. . .	.15

B. T. Couples, ...	$0.90
C. T. “	1.75
P. T. “	2.60
B. T. Separators, ...	.09

"Chloride Accumulators" for Various Purposes.

Chloride Accumulators are made of various capacities, and are used for many different classes of work, practically including the entire field of applied electricity.

Following is a list of some of the applications of the Chloride Accumulator :

Central station lighting
Central station power
Trolley regulation
Isolated lighting
Street car traction
Electric locomotives
Electric launches
Electric vehicles
Electric elevator regulation
Train lighting
Yacht lighting
Carriage lighting
Fan motors
Electric bells
Telegraph
Telephone
Fire-alarm
Phonographs
Kinetoscopes
Electric pianos
Sewing machine motors
Heat regulation
Dental, medical, surgical and laboratory work
Railroad switch and signal apparatus

Send through Biddle

"WESTON Instruments" are standard throughout the world. ***No doubt about it.*** But at times a customer must decide ***how*** to buy them, and then the subject is of equal interest to ***him*** and to ***me.***

To deal "direct" with the factory is natural and good, but when an outside representative of the Weston Company can take a hand in the matter, without extra cost to the purchaser, ***results are still better.***

That is why "Send through Biddle" are the instructions issued by the purchasing agents of some big manufacturers, jobbers and users of Weston Ammeters and Voltmeters.

In my capacity of Selling Agent for the Weston Electrical Instrument Company, I solicit business as an actual representative of the factory, and give most careful attention to the ***shipment of orders entrusted to me.***

Unless otherwise arranged, all instruments are shipped and billed from the head office, at Waverly Park, so there is no shifting of responsibility or changing of accounts. ***My*** customers are the ***factory's*** customers.

Here is what one of them says:

> "This order is placed ***with you*** largely to
> insure attention to an ***early delivery."***

It is a good thing to have some one specially interested in your orders.

Catalogues and prices on request.

JAMES G. BIDDLE

Representing Weston Electrical Instrument Co.

1024-25 Stephen Girard Building, Philadelphia

JAMES G. BIDDLE

Dealer, Manufacturers' Agent
and Importer

1024=25 STEPHEN GIRARD BUILDING, PHILADELPHIA

REPRESENTING AS SPECIAL AGENT:

Morris E. Leeds & Co., Philadelphia,
Manufacturers of High Grade Electrical Measuring Instruments, Induction Coils and other Scientific Apparatus.

Weston Electrical Instrument Co., Newark, N. J.,
Manufacturers of Standard Portable Ammeters, Voltmeters and Wattmeters. Also Illuminated Dial and Round Pattern Switchboard Instruments.

Sociètè Genevoise, Geneva,
Manufacturers of High Grade Physical Laboratory Apparatus—Dividing Engines, Standards of Length, Cathetometers, Comparators, Spectrometers, Goniometers, Chronographs, etc.

The Electric Storage Battery Co., Philadelphia,
Manufacturers of the "Chloride Accumulator" Storage Battery.

Kelvin & James White, Limited, Glasgow,
Manufacturers of Lord Kelvin's Standard Ampere, Volt and Watt Balances, Electrostatic Voltmeters, Electrometers, etc.

Elliott Brothers, London,
Manufacturers of High Grade Electrical Measuring Instruments, and Scientific Apparatus.

The Bristol Co., Waterbury,
Manufacturers of Recording Ammeters, Voltmeters and Wattmeters. Also Vacuum and Pressure Gauges.

Cutler-Hammer Mfg. Co., Milwaukee and Westfield,
Manufacturers of "C-H" and "Iron-Clad" Field Rheostats, Motor Starting and Regulating Rheostats, and Rheostats to meet special conditions. "Grid-type" Rheostats for heavy service.

CORRESPONDENCE IS REQUESTED

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